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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,677	07/31/2001	Shunpei Yamazaki	12732-062001	1190
26171	7590	06/02/2004	EXAMINER	
FISH & RICHARDSON P.C. 1425 K STREET, N.W. 11TH FLOOR WASHINGTON, DC 20005-3500			LEURIG, SHARLENE L	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/917,677

Applicant(s)

YAMAZAKI, SHUNPEI

Examiner

Sharlene Leurig

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-17 and 19-45 is/are pending in the application.
- 4a) Of the above claim(s) 8-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,17 and 19-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0701,0901.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed March 18, 2004 has been entered and acknowledged by the examiner. Claims 1, 2, 24, 30 and 38 have been amended, claims 44 and 45 have been added and claims 4 and 18 have been cancelled.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 24, 27-30, 33-38 and 41-43 stand rejected under 35 U.S.C. 102(e) as being anticipated by Koyama (6,380,007) (of record).

Regarding claim 24, Koyama discloses a light emitting device comprising a substrate holder (Figure 18B, element 6001), a metal substrate (column 12, lines 36-46) over the substrate holder, an insulating film (4026) over the metal substrate, and a light emitting element over the insulating film, the light emitting element including an anode (4027), a cathode (4030), and an EL material (4029) interposed between the cathode and the anode.

Regarding claim 30, Koyama discloses a light emitting device having all the limitations discussed above, and further discloses a light shielding film (6000, 4016) adjacent the cathode (column 28, line 65).

Regarding claim 38, Koyama discloses a light emitting device having all the limitations discussed above with respect to claim 24, and further discloses a first insulating film (4021) over the metal substrate, at least one thin film transistor (4025) over the first insulating film, a second insulating film (4026) over the first TFT, and where the first electrode (4027) provided over the second insulating film is electrically connected with the TFT.

Regarding claims 27, 33 and 41, Koyama discloses a maximum surface roughness of the substrate being equal to or less than 1 micron as shown from the smooth line on the substrate surface.

Regarding claims 28, 34 and 42, Koyama discloses a radius of curvature of convex portions existing on a surface of the substrate (Figure 17B, element 4029) of equal to or greater than 1 micron.

Regarding claims 29, 35 and 43, Koyama discloses the light emitting device incorporated in a video camera (Figure 23).

Regarding claim 36, Koyama discloses the light shielding film in contact with the cathode (Figure 18B, element 4016).

Regarding claim 37, Koyama discloses the shielding film (6000) formed adjacent the cathode with an insulating or conductive film (6004) interposed therebetween.

***Claim R jections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-7, 17, 19-23, 25, 26, 31, 32, 39, 40 and 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama (6,380,007) (of record) in view of Moriyama et al. (6,447,612) (of record).

Regarding claim 1, Koyama discloses a light emitting device with an insulating film (Figure 19, element 42) over a substrate having a metallic surface (column 12, lines 36-46), a light emitting element on the insulating film including an anode (47), cathode (43) and an EL material (45 and 46) interposed between the anode and the cathode.

Regarding claim 2, Koyama discloses a light emitting device having all the limitations discussed above, and further discloses a light shielding film (Figure 14, elements 641, 642, 643 and 520) adjacent the cathode.

Regarding claims 1, 2, 26, 32 and 40, Koyama fails to exemplify the thickness of the substrate having a metallic surface.

Moriyama teaches a metal substrate for a semiconductor electrical device, wherein the metal substrate has a thickness that falls within the claimed range of 5 to 30 microns. Moriyama teaches such a thickness of a metal substrate in order to optimize the thinness of the substrate while also optimizing its strength (column 9, lines 34-43).

Therefore regarding claims 1, 2, 26, 32 and 40, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the metal substrate of Koyama to have a thickness within the range of 5 to 30 microns in order to provide a strong yet thin substrate for a semiconductor device, as taught by Moriyama.

Regarding claims 3, 17, 25, 31 and 39, Koyama discloses the substrate having the metallic surface be a heat resistive metallic material, namely stainless steel (column 12, lines 36-46).

Regarding claims 5 and 19, Koyama discloses a maximum surface roughness of the substrate being equal to or less than 1 micron as shown from the smooth line on the substrate surface.

Regarding claims 6 and 20, Koyama discloses a radius of curvature of convex portions existing on a surface of the substrate (Figure 17B, element 4029) of equal to or greater than 1 micron.

Regarding claims 7 and 21, Koyama discloses the light emitting device incorporated in a video camera (Figure 23).

Regarding claim 22, Koyama discloses the light shielding film in contact with the cathode (Figure 18B).

Regarding claim 23, Koyama discloses the shielding film formed adjacent the cathode with an insulating or conductive film interposed therebetween (Figure 18B).

Regarding claims 44 and 45, Koyama discloses a TFT formed over the substrate having the metallic surface.

***Response to Arguments***

6. Applicant's arguments filed March 18, 2004 have been fully considered but they are not persuasive.

The applicant has argued that the combination of the Moriyama and Koyama references is improper as it lacks proper motivation, specifically because the Moriyama reference constitutes non-analogous art from the Koyama reference as well as that of the claims (page 11). The applicant has referred to the MPEP, section 2141.01(a), and argued that the Moriyama reference is directed to a process of forming a photovoltaic element by a roll-to-roll process, while "the field of applicant's endeavor" and 'particular problem with which the inventor was concerned'" are directed to EL light-emitting devices. The applicant has argued that the office action did not "identify any 'similarities ... in structure and function' between the devices of claims 1 and 2 (or Koyama) and Moriyama that would cause Moriyama to be considered analogous art for the purposes of rejection" (page 11).

The Moriyama reference teaches a metal substrate of a certain thickness to provide the necessary strength to support layers of semiconductive, electrically connected materials. Both the Koyama reference and the applicant's claimed invention are directed to metal substrates providing support to multiple layers of semiconductive, electrically connected materials. Therefore the Moriyama reference is found to be analogous to both the Koyama reference and the applicant's claimed invention, insofar as the Moriyama reference contains similarities in structure and function.

Regarding the applicant's identification of the classification of the Moriyama reference versus that of the Koyama reference, the applicant is directed to MPEP 2141.01(a), which states that "While Patent Office classification of references and the cross-references in the official search notes are some evidence of 'nonanalogy' or 'analogy' respectively, the court has found 'the similarities and differences in structure and function of the inventions to carry far greater weight'". The similarities in structure are indicated above.

Therefore the rejection of claims 1 and 2 and their dependents are maintained.

Regarding the applicant's arguments with respect to claims 24, 30 and 38, the Koyama reference does disclose a substrate holder on which the substrate is provided (Figure 18B, element 6001).

Therefore the rejection of claims 24, 30 and 38 and their dependents is maintained.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



Art Unit: 2879

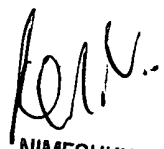
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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